

ai
conced
the lateral width in the horizontal direction has a portion within the gain region set wider than the cut-off width were the lateral mode is identical.

a2 20. (Amended) An optical module comprising at least an optical fiber for introducing light outside and a semiconductor laser that includes a semiconductor substrate, a core region formed on one side of the semiconductor substrate, and a clad region formed at least on the opposite side of the substrate not having the core region, wherein

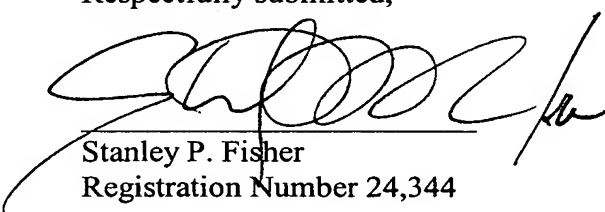
the core region has a gain area length not smaller than 5 micrometers and not greater than 200 micrometers, at least one of the core region and the clad region has a stripe shape and a stripe width is modulated in the vertical direction against the optical axis of at least the core region or the clad region and in the parallel direction with respect to the substrate surface, and the stripe width in the vicinity of the stripe ends is set narrower than a cut-off width where a lateral mode is identical, and the lateral width in the horizontal direction has a portion within the gain region set wider than the cut-off width were the lateral mode is identical.

REMARKS

Applicant has amended claims 10 and 20 in order to place them in accordance with standard U.S. practice.. No new matter has been added to the application as a result of this amendment.

In view of the above amendments and Applicant's comments stated herein, Applicant respectfully requests an early and favorable action on the merits.

Respectfully submitted,


Stanley P. Fisher
Registration Number 24,344

REED SMITH LLP
3110 Fairview Park Drive
Suite 1400
Falls Church, Virginia 22042
(703) 641-4200
February 26, 2002

JUAN CARLOS A. MARQUEZ
Registration No. 34,072